

INDEX

(The first number cited is the issue number)

Author Index

Alex, Franklin 3-48-51
 Bassford, T. H. 2-62-63
 Becker, J. R. 1-17-22
 4-21-29
 Bellows, Guy 4-55-58
 Bielefeldt, Irvin P. 3-44-45
 Black, Paul H. 3-46-48
 Borik, Frank 2-33-39
 Boulger, F. W. 1-17-22
 Brickner, K. G. 1-14
 Butt, S. H. 3-55-62
 Chandler, J. 1-36-38
 Copley, S. M. 4-59-60
 Couling, S. L. 2-7-13
 Crossley, F. A. 1-27-31
 Davis, L. W. 1-38-41
 Denhard, E. E., Jr. 1-61-63
 4-18-20
 DeSalvo, Gabriel J. 2-17
 Dolan, T. J. 4-32-40
 Doran, Jay H. 3-38-43
 Duhi, D. N. 4-59-60
 Eckenrodt, J. J. 1-5-10
 Erwin, Stephen J. 4-1-6
 Espy, R. H. 4-18-20
 Fitzpatrick, J. M. 1-27-31
 Foerster, George S. 1-22-27
 Fortner, E. 3-17-24
 Friedman, G. I. 1-32-36

Grant, S. P. 3-17-24
 Gaugh, R. R. 1-61-63
 Gedwill, Michael A. 2-55-61
 Gorecki, T. A. 1-32-36
 Grisaffe, Salvatore J. 2-55-61
 Hanewell, J. D. 4-6-10
 Hanley, Fiske 3-38-43
 Harrington, Joseph, Jr. 3-1-3
 Haviland, Girard S. 3-3-10
 Henning, H. J. 1-17-22
 Hosier, J. C. 3-51-55
 Hsu, Y. T. 2-63-64
 4-41-45
 Hull, John H. 4-1-6
 Inal, O. T. 3-29-34
 Kear, B. H. 4-59-60
 Kemppinen, Aavo I. 1-63-64
 Koul, M. K. 3-13-16
 Kovach, C. W. 1-5-10
 Kraus, G. 1-41-48
 Krzyminski, Harold 4-29-31
 Kumar, A. 1-36-38
 Lamberti, J. T. 1-36-38
 Lewis, R. E. 1-27-31
 Liuzzi, M. 2-39-47
 Long, J. R. 1-38-41
 Lowrie, R. E. 3-25-29
 Mal, M. Kumar 4-52-54
 Minford, J. Dean 4-48-51

Moeller, R. H. 2-62-63
 Monnot, J. 2-39-47
 Moyer, Kenneth H. 3-34-38
 Murr, L. E. 3-29-34
 Muscara, J. 2-21-32
 Nixon, Travis D. 4-45-47
 Olofton, C. T. 1-17-22
 Opie, W. R. 2-63-64
 4-41-45
 Osborn, H. B., Jr. 3-11-13
 Perry, D. C. 1-61-63
 Popoff, A. A. 4-21-29
 Sadowski, E. P. 2-47-55
 Schlatter, René 1-48-60
 Scoonover, T. M. 1-41-48
 Shaw, Milton C. 2-1-7
 Sinnott, M. J. 2-21-32
 Smith, Kenneth V. 2-13-20
 1-14
 Statson, A. R. 3-63-64
 Tarkan, Stuart E. 4-52-54
 Taubenblatt, P. W. 2-63-64
 4-41-45
 Tillack, D. J. 3-51-55
 Tricot, R. 2-39-47
 Vandervoort, Richard R. 1-10-16
 Warnock, R. V. 3-63-64
 Wu, K. C. 3-25-29
 Yeo, R. B. G. 3-13-16

Subject Index

Abrasion 2-35-36
 ball mill abrasion test 2-36-38
 gouging abrasion test 2-33-35
 rubber wheel abrasion test 2-33-35
 Abrasion wear testing machines 2-21-24
 design and construction 2-23
 loading 2-21-23
 motions of abrasive and specimen 2-24-32
 test of Fe-C-O alloys 2-21-24
 use of Bridgeport vertical milling machine 3-6-9
 Adhesive bonding 3-9
 cleaning of parts 3-6
 heating for cures 3-6
 reasons for mechanizing 3-6
 types 3-3-10
 use of automation 4-48
 Adhesives 4-48-51
 factors affecting bond life 4-49-50
 for joining Al 4-50-51
 natural atmospheric exposures 4-49-50
 stress and environment exposures 4-49-50
 testing bonded joints 3-1-3; 3-3-10; 3-11-13
 Advances in automation 2-51-53
 Air induction melts 4-16
 of stainless maraging steels 2-59-60
 Air velocities 2-60-61
 of Ti alloys 4-48-51
 Aluminum coatings 4-48-51
 on superalloys 1-63-64
 Aluminized NiCrSi coatings 3-44-45
 on superalloys 3-48-51
 Aluminum 3-48-51
 adhesives for joining 1-63-64
 evaluation of adhesives 1-63-64
 extrusion by computer 3-44-45
 temperature rise by simulation 3-48-51
 vacuum fluxless brazing 4-48-51
 Aluminum alloys 3-48-51
 electron fractographs 3-48-51
 stress corrosion 4-48-51
 Aluminum forgings, specific types 4-3, 5-6
 2024 4-2-3
 deformation 4-2-3
 mechanical properties 4-2
 2219 4-2
 deformation 4-2
 mechanical properties 4-2
 2618 4-2
 deformation 4-2, 6
 mechanical properties 4-2
 stress relief 4-3-6
 7049 4-1-2
 deformation 4-1-2
 mechanical properties 4-1-2
 stress relief 4-3-6
 7075 1-28-29
 Anisotropy 1-24-25
 of Ti alloys 1-24-25
 Atomization 1-24-25
 of Mg 1-24-25

Ausforming 4-22-28
 of steels 4-30
 Austempering 1-3
 use of salt baths 1-3
 Austenitic stainless steels 4-19
 formability 4-18-19
 Austenitic stainless steels, specific types 4-18-20
 18-3Mn 4-20
 corrosion resistance 4-19-20
 mechanical properties 1-11-12, 15-16
 strengthened with N₂ 4-18-19
 uses 1-13-15
 welding 1-15
 21-6-9 4-18-20
 corrosion resistance 4-20
 fracture 4-19-20
 mechanical properties 1-11-12, 15-16
 notch tensile tests 4-18-19
 static load tensile tests 1-13-15
 strengthened with N₂ 1-15
 tensile tests 4-18-20
 uses 1-11-15
 welding 4-20
 22-13-5 4-19-20
 corrosion resistance 4-19
 mechanical properties 4-18-19
 strengthened with N₂ 4-18-20
 uses 4-20
 welding 4-19-20
 200 series 1-9
 corrosion resistance 1-8-9
 deformation 1-5-10
 effect of Mn 1-6
 elongation 1-9-10
 machinability 1-7-8
 tensile strength 1-6-7
 work hardening 1-5-8
 yield strength 1-5-8
 0.04C-5.0Mn-0.35Si-22.0Cr-12.5Ni-2.25Mo-0.30N 1-61-62
 0.20Cb(Nb)-0.20V 1-62-63
 corrosion resistance 1-62
 hot workability 1-62
 strength 1-41-47
 Austenitizing 3-1
 of steels 3-3-10
 Automation 3-11-13
 design trends 3-1-3
 in adhesive bonding 3-1-3
 in induction hardening 3-1-3
 production 2-35-36
 Ball mill abrasion test 3-42-43
 Bend sawing 2-44
 of B-epoxy composites 2-41-47
 Bearing steels, specific types 2-40-41
 52100 2-43-44
 effect of S on endurance 2-39-40
 effect of S on fatigue 2-44
 endurance 2-41-47
 fatigue 2-40-41
 microstructure 2-43-44
 nonmetallic inclusions 2-39-40
 rolling contact fatigue 2-39-40

Boron-epoxy composites, specific types

B-epoxy/Ti laminate	
band sawing	3-4243
circle sawing	3-42
countersinking	3-40
drilling	3-3940
milling	3-41
reaming	3-4041
routing	3-42
Bridgeport vertical milling machines	
as abrasive wear testing apparatus	2-21-24
Carbon	
effect on stainless maraging steels	2-50
Carburizing	
use of salt baths	4-29-30
Case depths	
of hot densified powder metal alloys	2-14-16
Chromium	
effect on stainless maraging steels	2-48-50
Circle sawing	
of B-epoxy composites	3-42
Cleaning	
In adhesive bonding	3-6-9
Cobalt	
effect on stainless maraging steels	2-50
Cold-work steels	
electroflux remelting	1-57-60
Composites	
use of electron microscope	1-36-41
variance of transverse properties	1-39-41
Composition	
of Ni alloys	3-52
Compressor blade distortion and finishes	
integrity principles	4-57
Cone angles	
in hardness testing	2-3-4
Contact resistance	
of Cu alloys	3-58-60, 62
Continuous furnace	
vacuum fluxless brazing	3-44-45
Cooling rates	
of Ti alloys	4-15
Copper alloys	
solder dip test	3-57-58, 61-62
solder spread test	3-56-57, 60-61
solderability	3-56-58, 60-62
Copper alloys, specific types	
Map-Zinc-Chrom	
fatigue properties	4-44
high-temperature properties	4-44
preparation	4-41-42
processing	4-42
properties	4-42-44
uses	4-44
Cu-2Ni-1Ti	
properties	2-63-64
Cu-5Ni-2.5Ti	
properties	2-63-64
Cu-30Ni-0.4Ti-0.3Be	
properties	2-63-64
Corrosion	
of Ni alloys	3-53-54
Corrosion resistance	
of austenitic stainless steels	1-9; 1-61-62; 4-19
Crimp	
of Ni alloys	2-62-63
Decarburization	
of hot densified powder metal alloys	2-19-20
Deformation	
of Al forgings	4-1-6
of austenitic stainless steels	1-8-9
of Ti alloys	1-29-30
Density	
of Fe forgings	3-34-38
Design	
contributions to failure	4-32-35, 39
of extruded superalloys	1-35
Design stress	
of Ni alloys	2-62-63
Design trends	
in automation	3-1
Deterioration	
contribution to failure	4-36, 39-40
Die-casting	
of Mg alloys	2-12-13
Dimensional changes	
of hot densified powder metal alloys	2-16-17
Dispersion hardening	
of Mg	1-22-27
Drilling	
of B-epoxy composites	3-39-40
Elasticity	
in hardness testing	2-1-7
Electrodes	
in electroflux remelting	1-53
Electroflux remelting	
advantages	1-49-51
disadvantages	1-49-51
electrodes	1-53
flux technology	1-52-53
remelting parameters	1-51-52
remelting practice of tool steels	1-48-50
Electron fractographs	
of stress corrosion in Al alloys	3-48-51
Electron microscopes	
in examination of composites	1-38-41
Electron transmission microscopy	
in fracture of Ir	3-29-34
in study of fracture	3-29-34
Elongation	
of austenitic stainless steels	1-6
Embrittlement	
of Cu in steel welds	3-22-23
of P in steel welds	3-23-24
of Ti alloys	4-15
Endurance	
of bearing steels	2-41-47

Extrusion	
of Al by computer	1-63-64
of Mg	1-23-26
of steels	1-20-21
of superalloys	1-32-36
Fabrication	
contribution to failure	4-34-36, 39
of Ni alloys	3-55
Failures	
analysis	4-36-37
design inadequacies	4-32-35, 39
environmental and service deterioration	4-36, 39-40
investigation	4-37-39
processing and fabrication	4-34-36, 39
Fatigue	
of bearing steels	2-41-47
of Cu alloys	4-44
Ferritic stainless steels	
formability	1-1-3
Field ion microscopy	
in fracture of Ir	3-29-34
in study of fracture	3-29-34
"Filled billet" extrusion	
of superalloys	1-32-33
Forgings	
statistical evaluation of tensile tests	1-36-38
Forming	
of stainless steels	1-1-4
of steels	1-19-21
Fracture	
of austenitic stainless steels	1-11-12, 15-16
Gas atmospheres	
choice of atmosphere	4-46-47
types	4-45-46
Glasses	
hardness testing	2-6-7
Gouging abrasion test	2-36-38
Hardensability	
in steels	3-14-15
Hardness	
of hot densified powder metal alloys	2-14-16
of steels	1-18-19; 1-43-47; 3-16; 4-24-25, 27
Hardness testing	
effective cone angle	2-3-4
elasticity	2-1-7
glasses	2-6-7
polymers	2-6-7
slip line field theory	2-1-6
Heat treatment	
of hot densified powder metal alloys	2-16-17
of Ti alloys	1-29
High-speed steels	
electroflux remelting	1-54-56
Hot-cold working	
of steels	4-22-68
Hot densified powder metal alloys, specific types	
H/D:P/M 4620	
case depths	2-14-16
decarburization	2-19-20
dimensional changes	2-16-17
hardness	2-14-16
heat treatment	2-16-17
microstructure	2-17-18
oxide penetration	2-19-20
porosity	2-18-19
H/D:P/M 4650	
case depths	2-14-16
decarburization	2-19-20
dimensional changes	2-16-17
hardness	2-14-16
heat treatment	2-16-17
microstructure	2-17-18
oxide penetration	2-19-20
porosity	2-18-19
Hot-work steels	
electroflux remelting	1-56-57
Hot workability	
of austenitic stainless steels	1-62-63
Hydroburst tests	
of Ti alloys	1-30-31
Hydrogen	
in Ti alloys	4-16-17
Impact properties	
of Fe forgings	3-34-38
Induction hardening	
use of automation	3-11-13
Information sources	
of surface integrity	4-57-68
Ingots	
of stainless maraging steels	2-51
Interference hardening	
of Mg	1-26-27
Iridium	
fracture	3-29-34
use of electron optical techniques	3-29-34
Iron alloys, specific types	
Fe-C-Cr	
abrasive cloths	2-24
different abrasives	2-27-29
effects of load and grit size	2-29-32
statistical description of abrasion	2-26-27
testing abrasive wear testing machine	2-24-32
FeCrAlY coatings	
on superalloys	2-55-56, 58-60
Iron forgings	
density	3-34-38
impact properties	3-34-38
Irradiation	
effect on steel welds	3-17-24
Irradiation embrittlement	
of steel welds	3-23-24
Jet engine parts	
application of surface integrity	4-56-57
statistical evaluation of tensile tests	1-36-38
Length	
of extruded superalloys	1-35
Machinability	
of austenitic stainless steels	1-9-10

Machining	3-38-43
of B-epoxy composites	1-21-22
of steels	1-21-22
Magnesium	1-24-25
atomization and extrusion	1-24-25
dispersion hardening	1-23
extrusion of powder	1-23
interference hardening	1-25-27
Magnesium alloys	2-12-13
die-casting	2-12-13
Magnesium alloys, specific types	
AM50A	2-8
properties	2-8
AP65	2-11
properties	2-11
AS41A	2-7-8
properties	2-7-8
AZ21A	2-9
addition of Si, Ca, or mischmetal	2-9
properties	2-9-9
ZE63A	2-8
properties	2-8
ZM21	1-10-11
properties	1-10-11
Z521	2-11
properties	2-11
Mg-Al-Si-Mn	2-9-10
properties	2-9-10
Mg-Y	2-11-12
properties	2-11-12
Magnesium, molten	4-6-10
oxidation inhibitor	4-7-10
reaction of SF ₆	4-7-10
Manganese	1-5-10
effect on austenitic stainless steels	1-5-10
Mechanical properties	4-1-3
of Al forgings	4-18-19
of austenitic stainless steels	1-35-36
of extruded superalloys	3-52-53
of Ni alloys	4-60
of Ni superalloys	3-15-16; 4-25, 27
Metallurgical stability	3-52-53
of Ni alloy	1-4
Metastable steels	2-40-41
formability	2-17-18
Microstructure	4-26, 28
of bearing steels	4-14-15
of hot densified powder metal alloys	4-26, 28
of steels	4-14-15
of Ti alloys	4-14-15
Milling	3-41
of B-epoxy composites	2-48-50
Molybdenum	2-48-50
effect on stainless maraging steels	2-48-50
Nickel	2-48-50
effect on stainless maraging steels	2-48-50
Nickel alloys	2-62-63
creep	2-62-63
design stress	2-62-63
rupture	2-62-63
Nickel alloys, specific types	2-62-63
Inconel alloy 617	3-52
composition	3-53-54
corrosion	3-55
fabrication	3-52-53
mechanical properties	3-54-55
metallurgical stability	3-53-54
resistance to oxidation	3-53-54
NiCrSi coatings	1-55-57, 59-61
on superalloys	1-55-57, 59-61
Nickel superalloys, specific types	
B-1900	4-49-60
formation of helical single crystal springs	4-49-60
mechanical properties	4-60
MAR-M200	4-59-60
formation of helical single crystal springs	4-59-60
mechanical properties	4-60
Nitriding	4-54
of TiC composites	4-30-31
use of salt baths	4-30-31
Nitrogen	4-18-20
strengthening austenitic stainless steels	4-18-20
Nonmetallic inclusions	2-43-44
of bearing steels	1-13-15
Notch tensile tests	3-17-24
of austenitic stainless steels	3-17-24
Nuclear reactor vessels	3-17-24
effect of irradiation on steel welds	3-17-24
Oxidation inhibitors	4-7-10
SF ₆ reaction with molten Mg	4-7-10
Oxidation resistance	3-53-54
of Ni alloys	2-19-20
Oxide penetration	2-19-20
of hot densified powder metal alloys	2-19-20
Polymers	2-6-7
hardness testing	2-18-19
Porosity	4-41-42
of hot densified powder metal alloys	4-41-42
Preparation	4-41-42
of Cu alloys	4-41-42
Processing	4-34-36, 39
contribution to failure	4-42
of Cu alloys	3-1-3
Production	2-21-32; 2-33-39
in automation	4-1-6; 4-6-10; 4-10-17
Progress in abrasive testing	1-1-4; 1-5-10; 1-10-16
Progress in light metals	4-42-44
Progress in stainless steel	2-48-54
Properties	4-82-54
of Cu alloys	3-40-41
of stainless maraging steels	2-39-40
of TiC composites	3-42
Reaming	3-40-41
of B-epoxy composites	2-39-40
Rolling contact fatigue of bearing steels	3-42
Rusting	
of B-epoxy composites	
Rubber wheel abrasion test	2-33-35
Rupture	2-62-63
of Ni alloys	4-30
Salt baths	4-30-30
use in austempering	4-30-31
use in carburizing	4-30-31
use in nitriding	3-29-34
Scanning electron microscopy	3-29-34
in fracture of Ir	3-29-34
in study of fracture	1-23-24
Screw extrusion	1-19-21
of Mg	1-21-22
Selenium	3-46-48
effect on formability of steels	3-63-64
effect on machining of steels	3-63-64
Shot peening	3-63-64
Silicide coatings, specific types	3-63-64
Si-Cr	3-63-64
on Ti alloys	3-63-64
Si-Fe	3-63-64
on Ti alloys	3-63-64
Si-Ti	3-63-64
on Ti alloys	3-63-64
Silicon	2-50
effect on stainless maraging steels	1-34-35
Size	2-1-6
of extruded superalloys	3-57-58, 61-62
Slip line field theory	3-56-57, 60-61
in hardness testing	3-56-58, 60-61
Solder dip tests	3-56-58, 60-61
of Cu alloys	3-56-58, 60-61
Solder spread tests	3-56-58, 60-61
of Cu alloys	3-56-58, 60-61
Solderability	3-56-58, 60-61
of Cu alloys	3-56-58, 60-61
Springs	4-59-60
of Ni superalloys	4-59-60
Stainless maraging steels, specific types	
IN-736	2-51-53
air induction melts	2-50
effect of C	2-48-50
effect of Co	2-48-50
effect of Mn	2-50-51
effect of Mo	2-48-50
effect of Ni	2-48-50
effects of Si	2-50-51
ingots	2-51
properties	2-48-54
Stainless steels	1-3-4
formability	1-15
Static load tensile tests	3-17-24
of austenitic stainless steels	3-20-24
Steel welds	3-22-23
effect of irradiation	3-23-24
embrittlement	3-21-22
irradiation embrittlement	4-22-28
by Cu	4-22-28
irradiation embrittlement	4-22-28
by P	4-22-28
temporal embrittlement	4-22-28
temper embrittlement	4-22-28
Steel, specific types	
AISI 4340	4-22-28
austempering	1-41-47
austenitizing	4-24-25, 27
hardness	4-22-28
hot-cold working	4-22-28
mechanical properties	4-22-28
microstructure	4-22-28
structure	4-22-28
thermomechanical treatment	4-22-28
tooling	4-22-28
ultrasonic inspection	4-22-28
V-notch Charpy tests	4-22-28
D5c	4-22-28
austempering	4-24-25, 27
hardness	4-22-28
hot-cold working	4-22-28
mechanical properties	4-22-28
microstructure	4-22-28
thermomechanical treatment	4-22-28
tooling	4-22-28
ultrasonic inspection	4-22-28
V-notch Charpy tests	4-22-28
SAE 1010	1-19-21
effect of Se and Te on formability	1-21-22
effect of Se and Te on machining	1-20-21
extrusion	1-18-19
hardness	1-18-19
tension tests	1-18-20
upset tests	1-19
C-Mn-B	3-13-16
effect of V	3-14-15
hardness	3-16
hardness of heat-affected zone	3-15-16
mechanical properties	3-15
tempering	2-24
Fe-Cr	2-27-29
abrasive cloths	2-29-32
different abrasives	2-26-27
effects of load and grit size	2-24-32
statistical description of abrasion	2-24-32
testing abrasive wear	2-24-32
Stress corrosion	3-48-51
in Al alloys	4-12-13
of Ti alloys	4-3-6
Stress relief	1-43-47
of Al forgings	2-44
Structure	4-8-9
of steels	4-7-6
Sulfur	4-7-10
effect on fatigue of roller bearings	4-8
Sulfur hexafluoride	
commercial experiences	
high temperature reactions	
oxidation inhibitor	
reaction with molten Mg	
toxicity	

Superalloys		
design	1-35	
extrusion	1-32-36	
"filled billet" extrusion	1-32-33	
length	1-35	
mechanical properties	1-35-36	
parameters of shapes	1-33-36	
size	1-34-35	
Superalloys, specific types		
IN-100		
aluminide coatings	2-59-60	
aluminized CrCrSi coatings	2-60-61	
FeCrAlY coatings	2-55-56, 58-60	
NiCrSi coatings	2-55-57, 59-61	
WI-52		
aluminide coatings	2-59-60	
aluminized NiCrSi coatings	2-60-61	
FeCrAlY coatings	2-55-56, 58-60	
NiCrSi coatings	2-55-57	
Surface conditions		
of Ti alloys	4-15-16	
Surface integrity		
application to jet engine parts	4-55-57	
information sources	4-57-58	
Thermomechanical treatment		
of steels	4-21-24	
Tantalum alloys, specific types		
90Ta-10W		
silicide coatings	3-63-64	
Tellurium		
effect on formability of steels	1-19-21	
effect on machining of steels	1-21-22	
Temper embrittlement		
of steel welds	3-21-22	
Temperatures		
simulated rise during		
extrusion of Al	1-63-64	
Tempering		
in steels	3-15	
Tensile properties		
of Ti alloys	3-25-28	
Tensile strength		
of austenitic stainless steels	1-7-8	
Tensile tests		
of austenitic stainless steels	2-11-15	
of jet engine parts	1-26-38	
Tension tests		
of steels	1-19-20	
Texture strengthening		
of Ti alloys	1-27-31	
Thermal strain		
of Ti alloys	3-25-29	
Thermomechanical deformation		
of Ti alloys	3-25-29	
Thickness		
of extruded superalloys	1-35	
Titanium alloys, specific types		
13-11-3		
effect of air velocity	4-16	
effect of hot-salt stress corrosion	4-12-13	
effect of surface conditions	4-15-16	
H ₂ analyses	4-16-17	
64		
effect of air velocity	4-16	
effect of hot-salt stress corrosion	4-12-13	
embrittlement	4-15	
H ₂ analyses	4-16-17	
643		
effect of air velocity	4-16	
effect of hot-salt stress corrosion	4-12-13	
effect of surface conditions	4-15-16	
H ₂ analyses	4-16-17	
679		
effect of air velocity	4-16	
effect of hot-salt stress corrosion	4-12-13	
effect of surface conditions	4-15-16	
embrittlement	4-15	
H ₂ analyses	4-16-17	
microstructure	4-14-15	
811		
cooling rate	4-15	
effect of air velocity	4-16	
effect of hot-salt stress corrosion	4-12-13	
effect of surface conditions	4-15-16	
embrittlement	4-15	
H ₂ analyses	4-16-17	
microstructure	4-14	
variations of heating	4-16	
56215		
effect of air velocity	4-16	
effect of hot-salt stress corrosion	4-12-13	
effect of surface conditions	4-15-16	
H ₂ analyses	4-16-17	
microstructure	4-14	
6242		
effect of air velocity	4-16	
effect of hot-salt stress corrosion	4-12-13	
effect of surface conditions	4-15-16	
embrittlement	4-15	
H ₂ analyses	4-16-17	
microstructure	4-14-15	
Ti-6Al-4V		
anisotropy	1-28-29	
deformation	1-29-30	
heat treatment	1-29	
hydroburst tests	1-30-31	
tensile properties	3-25-28	
texture strengthening	1-27-31	
thermal strain	3-25-29	
thermomechanical deformation	3-25-29	
TiC composites, specific types		
Ferro-TiC M-6		
nitriding	4-54	
properties	4-52-54	
uses	4-54	
Tool steels		
electroflux remelting	1-48-60	
Tooling		
of steels	4-28-29	
Toxicity		
of SF ₆	4-8	
Turbine blade process selection		
application of surface integrity principles	4-57	
Turbine disc finishes		
application of surface integrity principles	4-55-56	
Turbine vane residual stresses		
application of surface integrity principles	4-56-57	
Ultrasonic inspection		
of steels	4-24	
Upset tests		
of steels	1-19	
Uses		
of Cu alloys	4-44	
of TiC composites	4-54	
V-notch Charpy tests		
of steels	4-25-27	
Vacuum fluxless brazing		
of Al	3-44-45	
Vanadium		
effect on steels	3-13-16	
Welding		
of austenitic stainless steels	4-19-20	
Work hardening		
of austenitic stainless steels	1-6-7	
Yield strength		
of austenitic stainless steels	1-5-8	

